

Comparison of CERES and Other Global TOA Flux Datasets

Figure 3: The comparison of monthly mean CERES ES-4 Edition2-Rev1 (ERBE-like), CERES-SRBAVG Edition2D-Rev1 non-GEO, GEWEX-SRB, ISCCP-FD, NCEP-reanalysis, ECMWF-ERA40 with the CERES-SRBAVG Edition2D-Rev1 GEO.

- global all-sky LW TOA fluxes during 2000 to 2003
- global clear-sky LW TOA fluxes during 2000 to 2003
- global all-sky SW TOA fluxes during 2000 to 2003
- global clear-sky TOA fluxes during 2000 to 2003

The CERES Rev1 user applied corrections have been applied to the CERES SW ERBE-like, non-GEO and GEO TOA fluxes. The top panel displays the global monthly means for each dataset. The middle panel shows the monthly mean flux differences with respect to CERES-SRBAVG GEO. The bottom panel left side contains the legend for the top panel and the corresponding 3-year flux means. The bottom panel right side contains the legend for the middle panel and the corresponding 3-year mean differences.

Figure 3a, Global All-sky LW TOA flux

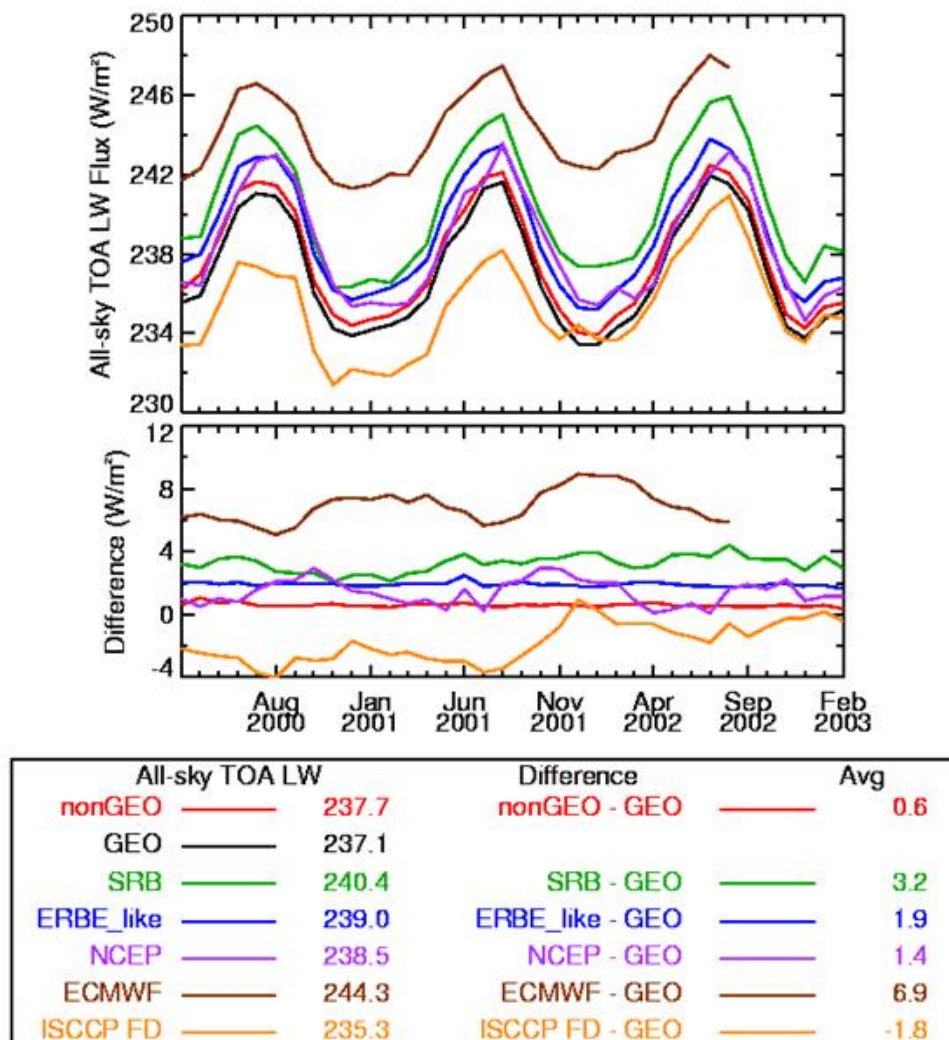
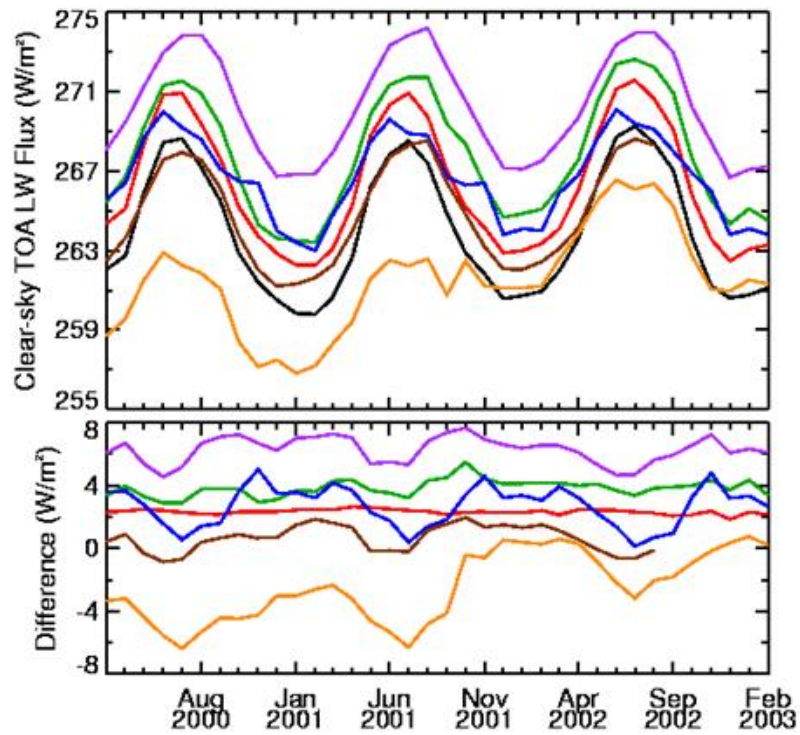


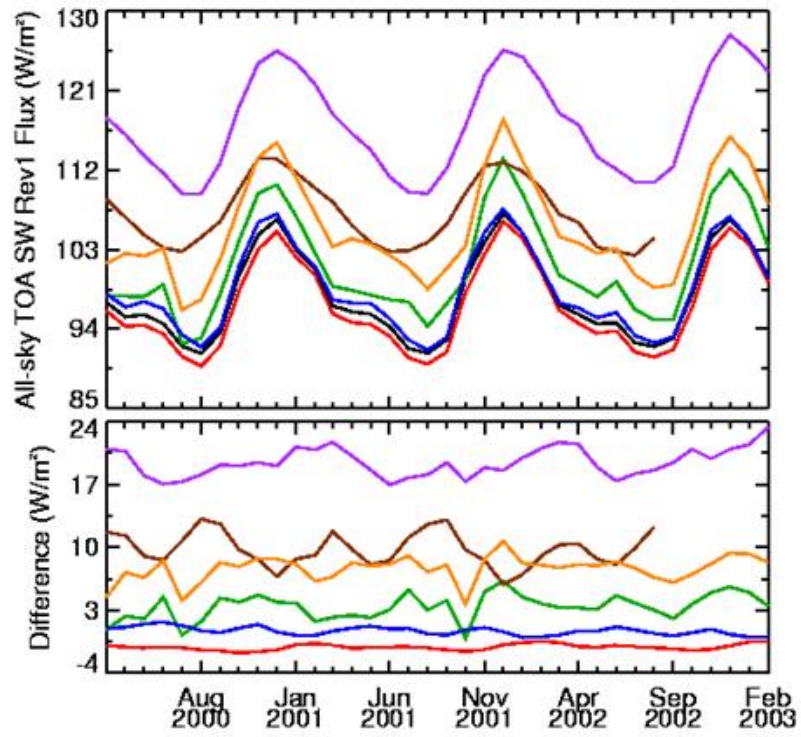
Figure 3b, Global Clear-sky LW TOA flux



Clear-sky TOA LW			Difference			Avg
nonGEO	—	266.3	nonGEO - GEO	—	2.3	
GEO	—	264.0				
SRB	—	267.8	SRB - GEO	—	3.8	
ERBE_like	—	266.7	ERBE_like - GEO	—	2.7	
NCEP	—	270.2	NCEP - GEO	—	6.3	
ECMWF	—	264.9	ECMWF - GEO	—	0.6	
ISCCP FD	—	261.5	ISCCP FD - GEO	—	-2.5	



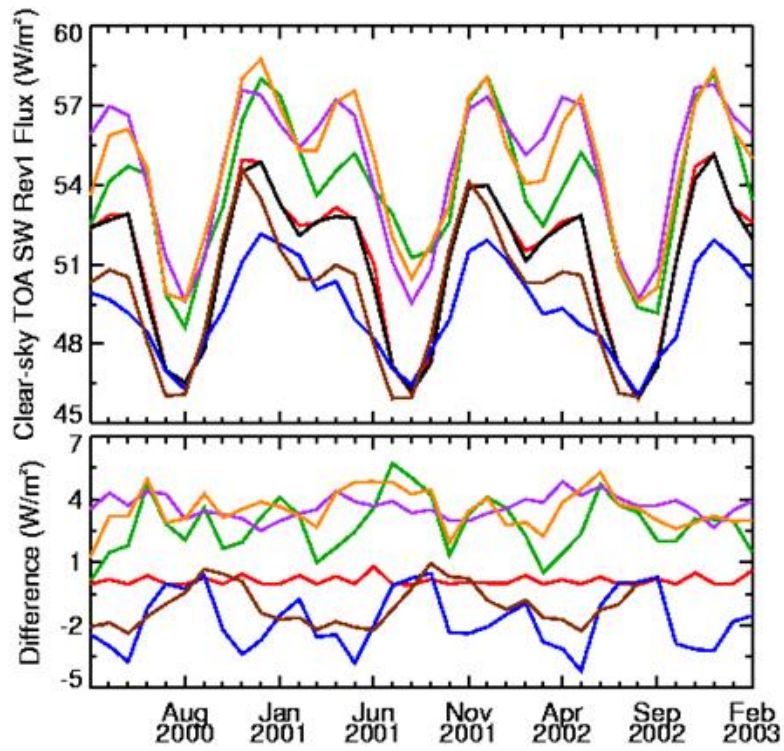
Figure 3c, Global All-sky SW TOA flux



All-sky TOA SW Rev1			Difference			Avg		
nonGEO	—	96.7	nonGEO - GEO	—	-1.1			
GEO	—	97.8						
SRB	—	101.2	SRB - GEO	—	3.4			
ERBE_like	—	98.5	ERBE_like - GEO	—	0.7			
NCEP	—	117.3	NCEP - GEO	—	19.5			
ECMWF	—	107.0	ECMWF - GEO	—	9.8			
ISCCP FD	—	105.4	ISCCP FD - GEO	—	7.6			



Figure 3d, Global Clear-sky SW TOA flux



Clear-sky TOA SW Rev1		Difference		Avg
nonGEO	51.2	nonGEO - GEO		0.1
GEO	51.1			
SRB	53.9	SRB - GEO		2.8
ERBE_like	49.3	ERBE_like - GEO		-1.8
NCEP	54.8	NCEP - GEO		3.7
ECMWF	49.8	ECMWF - GEO		-1.1
ISCCP FD	54.6	ISCCP FD - GEO		3.5